

# PATHWAYS

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## INVOLVING STUDENTS IN NON-FORMAL EDUCATION PROJECTS

Feisal Alkazi

A very new idea in the field of education is the need seen to link what is taught in the classroom, with what goes on outside of it. It is for this purpose, among others, that the Government has introduced the idea of SUPW into the school curriculum. With the idea of providing community service as SUPW under the 10+2 system, we at Abner Memorial School have been running the following programme for the last 2½ years.

Twenty centres of non-formal education have been set up by us, mainly in the Old Delhi areas, each catering to a clientele of 25-30 illiterates or school drop-outs. The target group is usually in the five to sixteen age group and is working either as petty labour or at home.

It is these target groups that our students of classes IX and X teach, on three days a week as their SUPW. This is made possible by making SUPW periods (six a week) the last two periods of the time-table thrice a week. The school bus then leaves to drop these students at their centres. Each of these centres is run by two or three children, and every four or five centres supervised by a staff member who does this as a part of the regular schedule.

By and large these centres are located within the houses of our school children themselves,

though a few are set up in the space provided by the community.

The target group is collected by our students, who after an initial training, are sent out to conduct a survey under the supervision of staff members.

Training is done through the idea of residential camps, where besides the actual teaching techniques and making aids, the children are sent out to observe and interview the social reality of rural India, which they can later compare to the urban environment where they run the classes. Approximately three camps of this type are arranged every year.

At each centre, along with the use of a primer 'Bal Bharati' (NCERT publication) we have black-board instruction interspersed with the use of flash cards and flannel graphs, story telling, singing of songs and the playing of games. These games, thirty in all, seek to transform the act of learning into a fun experience. Variations of Ludo, Scrabble, Housey and card games encouraging a creative approach to word building and numeracy retention have been evolved. Along with these role-plays and a weekly visit to use the various facilities that Bal Bhawan provides, succeeds in

keeping attendance at our centres at about 60-70%, a very high rate if one thinks of the fact that no one is paying to come to this 'school without walls.'

Such an experience for our school children has not only been a teaching one, but a learning one as well. The child does not only get marks for his work, but is also paid in accordance with his field performance. Personality patterns have radically changed for the better because of the acceptance of responsibility, the authority of having to teach, the confidence that the taking of such as class requires.

The children have maintained diaries of the classes taken, and have also attempted to probe various sociological characteristics of the target group—food habits, local ceremonies, relationship of parent and child in such a setting and hurdles in the path of education.

Some excerpts from their own writing are given below :

1. "They told me that in their life they have thrice tasted some fruits, otherwise they had not even tasted fruits. By this we can have an idea of their poverty and miserable life".

—Alok Jain.

2. "When I talked of their girls, they said no well-educated and rich man will come and marry their daughters, if they do get educated. I couldn't respond to this shot".

—Rajesh Verma.

3. "Those who recently got married stopped coming to my centre; the reason is they feel shy and their husbands do not allow because of orthodoxy. Parents are careless—they do not bother about their children's future."

—Fozia Ali.

4. "I am fully enjoying my work and I have some sort of satisfaction which I only feel and am unable to express."

—Manju Gupta.

Face to face with a reality of a different kind of life, these students have perhaps better understood those vast and looming problems of the country—unemployment, hunger, illiteracy—and done their own small bit towards alleviating them.

(Mr. Feisal Alkazi, well known in theatre circles in Delhi, is also trained in Social Work and functions as the Director of the Non-Formal Education Project run by Abner Memorial School).

## A Typical Indian

To describe a typical Indian is as difficult as making up a list of the things that make up the blueness of the sky.

One of the most important qualities of Indian culture is that it has always been able to accept new influences and still remain what it was. All through India's history, foreign people have come to this land for different reasons ; to settle, to travel, to learn, to loot, and to conquer. The new ways of life they brought with them were not cast away by the people who lived in India, but absorbed and made their own. In a way our culture is like a bicycle : it is stable because it keeps moving. This is one of the reasons why India's ancient culture is with us even today, when we are trying our best to become a modern nation. We still have the ability to accept new things and make them our own.

Ours is a living and growing tradition. It is still taking in new influences and merging them with the old. If this stops, the Indian tradition itself will die. Often we see the old and the new side by side, in the process of becoming one.

Extract from 'THIS INDIA'  
by Shiela Dhar.  
(Publications Divn., Min. of I & B)

# Setting Behavioural Objectives

Jose Paul

Teaching today is a field where one cannot ignore increasing professionalism or fail to recognise that while teaching continues to be an 'art', it is also to be viewed in terms of the scientific management of learning experiences for a class of pupils or learners. A teacher therefore, must function like a manager—develop the ability to set goals for the learners in his charge, select the tools and strategies with which these can be achieved and evaluate not only the achievements of his pupils but also the tools (activities, methods, learning strategies) used and the goals themselves.

While most of us are still faced with large classes and burdensome-syllabi which constrain us to think of each teaching period in terms of a number of pages or chapters to be taught, we must, in the interests of our own professional growth, attempt to think of teaching in terms of behavioural objectives to be achieved by the learners. This may not always be possible—but every little bit of practice should help.

Does this perhaps begin to sound too difficult a task? Let us list out some things which every professionally competent teacher is capable of doing.

- \* He sets objectives for his teaching sessions.
- \* He selects the content of the lesson to make it suitable for achieving his objectives.
- \* He plans and uses appropriate methodology and learning activities.
- \* He chooses evaluation techniques to test the achievement of the learners.

The purpose of this article is to help in determining what exactly constitutes a 'behavioural objective'. Let us start by taking examples of a few general objectives. The teacher might set as the goals for a learner :

to be good at spelling  
to be a creative artist  
to become self-confident.

Such goals are vague, not easily attainable and are in need of further specification if the pupil's behaviour is to be observable and measurable. We could try to make them into specific objectives by re-phrasing them to read as

to know the spellings of the words in the lesson "The Monkey's Paw".

to know how to paint landscapes from memory

to know how to make speeches in public.

The objectives have become more specific but they cannot as yet be called 'behavioural objectives'. They can only be categorised as 'non-behavioural' as they do not specify what type of behaviour the child will exhibit as a result of attaining the objectives. They must tell us what the child can DO when he has reached that stage. Let us re-write them once again bearing this in mind. They will now be.

The child will be able to spell orally and in writing the words in the lesson "The Monkey's Paw".

The child will be able to paint from memory landscapes of places he has seen using crayons or water colours.

The child will be able to make a short speech in front of the class if he is given help in organising the material for his speech.

The expected behaviour of the child is now observable and therefore it is measurable. Note that the objective is not spelt out in terms of what the teacher does or teaches; it is what the child does as a result of undergoing a learning experience. Hence when we frame behavioural objectives they usually start with the words: "The child will be able to (is capable of) . . . . ."

Words like "grasp, master, evaluate, learn, know, understand, perceive comprehend, appreciate" have no place in the statement of the objective, as they do not give rise to observable

(contd. on page 15)

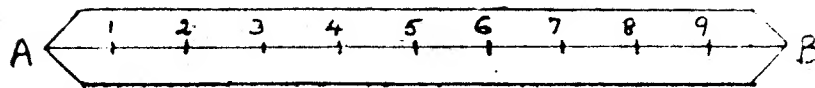


Fig. 1

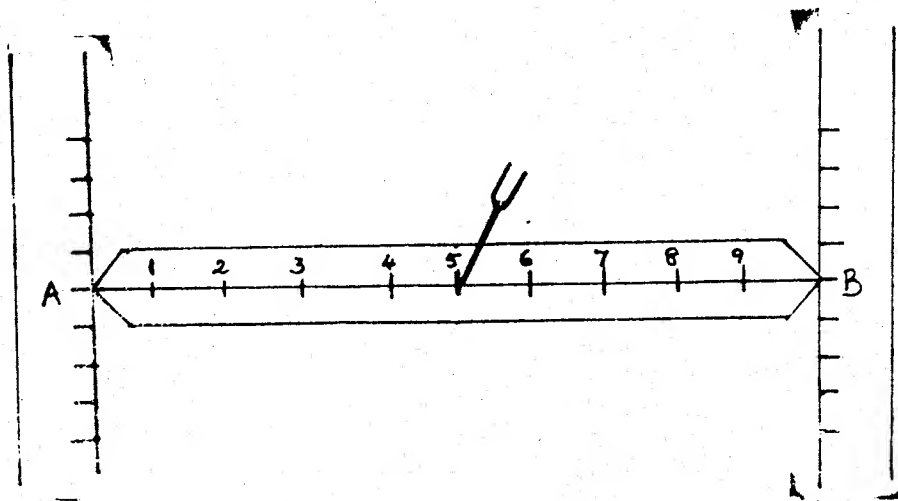


Fig. 2

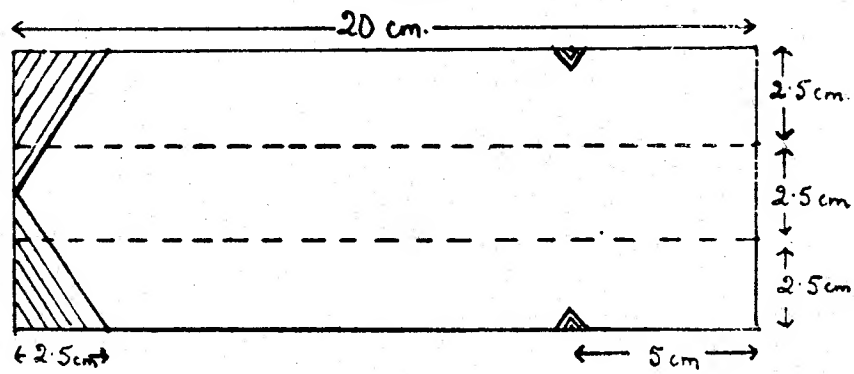


Fig. 3

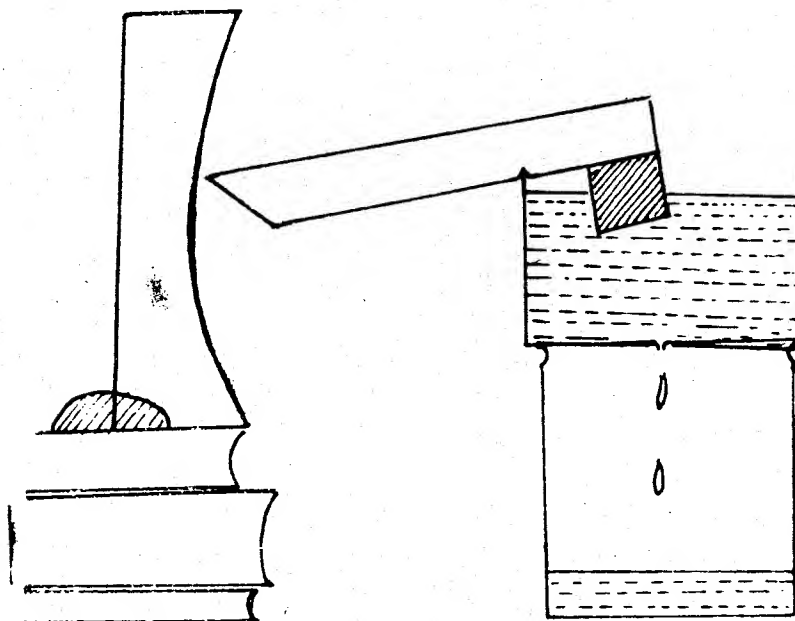


Fig. 4

# MAKING A WATER-CLOCK

## Things you will need to use

- \* A tin with the top cut away. It should be over 8 cm. wide.
- \* A pair of compasses
- \* A small piece of wood about 5 cm long and 2–3 cm. wide.
- \* Drawing pins and a tube of Quickfix
- \* A small jar
- \* White stiff card, scissors rulers
- \* Coloured pencils
- \* A hammer and a sharp nail
- \* A small quantity of plasticine
- \* A watch or clock

## Things you will need to know

How to tell the time in minutes

How to measure in half-centimetres

How to use a pair of compasses.

We can make the water clock by letting water drip from the tin into a jar, but the movement of the water level will be very slow. Can we magnify this movement?

Cut a piece of card 20 cm long and mark it at intervals of 2 cm as shown in figure 1 on the opposite page. Place this card AB between two rulers as shown in figure 2. Press the point of your compass through the middle point of AB (marked 5) so as to fix this point to the table-top on which you are working. If you move end A down by 2 cm along the ruler what happens to end B? Try this again by moving A through various distances.

Next place your compass point at the point marked 4— at a distance of 8 cm from A. Find out what happens to B as A is moved down through  $\frac{1}{2}$  cm, 1 cm, 2 cm and so on.

Repeat your experiment by placing the compass point at the point marked 2—that is, only 4 cm from end A.

We have found a way to magnify movement.

Cut out a rectangle of stiff white card 20 cm  $\times$  7.5 cm. Mark it as shown in Figure 3. Cut out the shaded portions and cut the two notches as shown. Fold along the dotted lines and fix the folded portions on either side of the small piece of wood with drawing pins or Quickfix.

Fill the tin with water. The shape of the tin is not important but it should be more than 8 cm wide and the top should have been cut away cleanly. Put the notches of your pointer on the rim of the tin so that the wood floats on the water. See Figure 4.

On another piece of card draw an arc of a circle having a radius of about 15 cm. Cut this shape out and put a mark in the middle. Place the tin on a jar (which will collect the water droplets) and stand the card on pile of books so that the mark at its centre is level with the top of the tin. Press the card into some plasticine so that it will stand upright.

Remove and empty the tin. Turn it upside down and using the nail, tap a small hole in its base. If your first attempt produces a very large hole use Quickfix to close it up partially.

Fill the tin. Stand it on the jar and reset the pointer. See that the tin of the pointer is close to but not touching the curve.

With a small paint brush mark the card opposite the point. Take care not to press too hard on the card or it will get shifted. If the pointer moves quickly mark its position after every minute. If it moves slowly you could make a mark on the card every five minutes.

When you have finished look at the marks on the card. Are they all the same distance apart? If not, can you say why?

Does the water run out more quickly when the tin is nearly full or when it nearly empty?

(Adapted from ACTIVITIES IN MATHEMATICS by B. F. Candy. Published by Hulton. Available at the Teachers' Centres, Delhi)

# Recreational Materials in Arithmetic

Arithmetic is one of the oldest sciences. The Number Theory is a fascinating field. Number sense is the ability to recognise the various relations that exist between numbers; an ability that is often absent in many who have an excellent understanding of advanced mathematics.

The few examples given below are suitable to school pupils and could be used to create interest in them.

1. The product of any three consecutive numbers is always divisible by six. For example.  
 $3, 4, 5$  divided by 6 is equal to 10  
 $9, 10, 11$  divided by 6 is equal to 165  
 $4, 5, 6$  divided by 6 is equal to 20
2. The number obtained by adding 1 to the product of any four consecutive numbers is always a perfect square. For example  
 $1, 2, 3, 4 + 1$  is equal to 25 which is a perfect square  
 $3, 4, 5, 6 + 1$  is equal to 361 which is a perfect square  
 $8, 9, 10, 11 + 1$  is equal to 7921 which is a perfect square

Such illustrations create curiosity in the pupils who are often surprised by the results. Without being asked by the teacher they try with many numbers to prove the truth of the statement. This can be real fun for children who have acquired curiosity about number relations.

3. The product of 12 and 42 is 504. The digits of the multiplier and the multiplied are reversed; but the product remains the same.

$$\begin{array}{ll} 12 \times 42 = 504 & \text{and } 21 \times 24 = 504 \\ 13 \times 93 = 1209 & \text{and } 31 \times 39 = 1209 \\ 46 \times 32 = 1472 & \text{and } 64 \times 23 = 1472 \end{array}$$

Plenty of such examples can be drawn by the pupils themselves by trial and error to discover the relationship between the numbers.

4. Number Patterns :

$$\begin{array}{ll} 9 \times 6 = 54 \\ 99 \times 66 = 6534 \\ 999 \times 666 = 665334 \text{ etc.} \end{array}$$

$$\begin{array}{ll} 7 \times 7 = 49 \\ 67 \times 67 = 4489 \text{ ; (square numbers)} \\ 667 \times 667 = 444889 \end{array}$$

$$\begin{array}{ll} 6 \times 7 = 42 \\ 66 \times 77 = 4422 \text{ (repeated digits)} \\ 666 \times 777 = 444222 \text{ ; etc.} \end{array}$$

5. Squares and Square Roots.

Numbers and their reverses are both squares:

$$\begin{array}{cccccc} 144 & 169 & 1089 & 10404 & 10609 & 12544 & 12769 \\ 441 & 961 & 9801 & 40401 & 90601 & 44521 & 96721 \end{array}$$

Squares and square roots with repeated digits

The square root of 165 165 836 836 is 406 406

The square root of 97 97 04 04 is 98 98.

6. Divisibility :

An integer of three digits repeated twice is divisible by 7, 11 and 13.

For example : 643 643 ; 352 352 and 101 101 are divisible by 7, 11 and 13.

An integer of two digits repeated thrice is divisible by 3, 7, 13 and 37.

For example : 92 92 92 ; 64 64 64 ; 11 11 11.

The illustrations cited above are certainly not exhaustive ; voluminous material could be made available to children at all levels. The purpose is not teach these as a regular subject, but to present them occasionally just to motivate the children to study Number Theory; to create a discovering attitude in them.

(From an Article entitled Inculcating Discovery Attitude in Pupils Through Arithmetical Recreation by N Subhramanya published in The Primary Teacher Vol. IV No. 2 of April 1979 )

# Viewing the Vastness of Universe

Space science and astronomy have increased in importance to the public recently, Mass media have played a large role in stimulating this interest with reports of unidentified flying objects, space probes and shuttles, and moon walks. Sales of space toys and games have boomed. Attendance at planetariums is rising. According to the Adler Planetarium in Chicago, attendance surged from 588,000 in 1967 to 686,000 through 1977.

Even though there is increased interest in the solar system, students perceive the vastness of the universe and its relation to earth as a vague abstraction. Youngsters have a hard time conceptually understanding the size of our planet, or

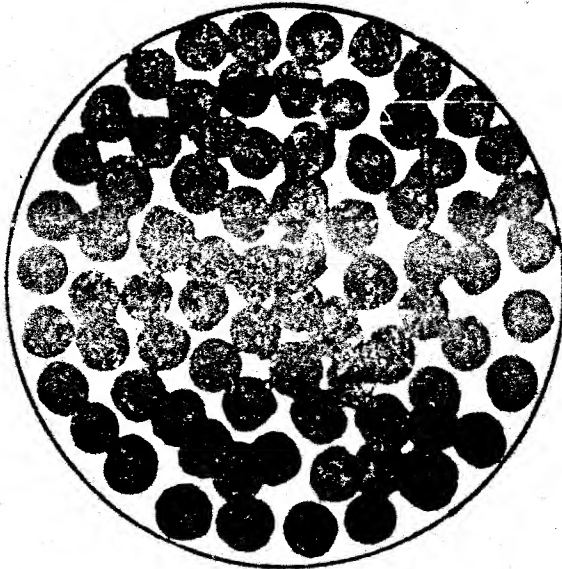


Fig. 1

Earth images covering Jupiter  
imagining extraterrestrial bodies that far exceed earth's dimensions.

Recently a community in the midwest worked with an elementary school district in a project involving visualization of one million objects. The purpose was to illustrate graphically the concept of one million. Instead of discarding soda bottle caps, the community deposited them in a field near the school. After months of collecting, the

community had a pile of one million caps. These sat majestically for all to see. What better way to illustrate the concept of one million?

Although it would be difficult to represent planet size as graphically as the bottle cap exam-

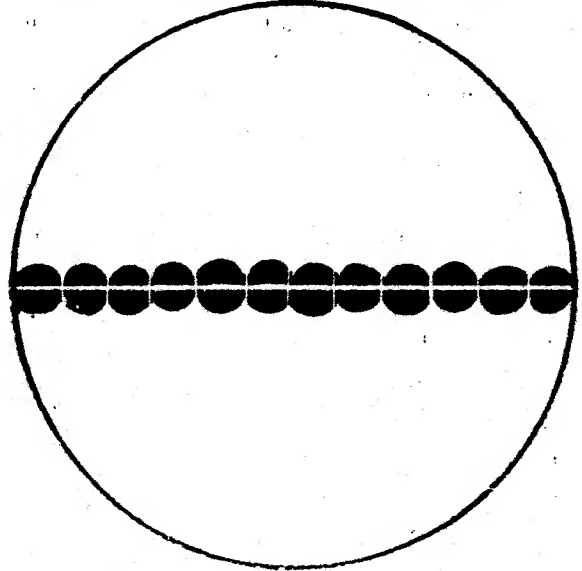


Fig. 2

Earth diameter relative to Jupiter's diameter

ple, children can do a simple activity which will reinforce the concept of planet size.

Several elementary science books illustrate planet size according to scale. Children visually compare the planets and realise they differ in circumference. Occasionally, the model size of earth approximates the size and shape of a new pencil eraser, or the size of a flat nail head. Other planets are scaled accordingly.

The pencil eraser's resemblance to the model of earth triggered an idea for an activity that would involve students in determining relative planet size. Assume the earth as seen through a telescope or in a photograph corresponds closely to the circumference of an unused pencil eraser.

At the beginning of class distribute an activity sheet and eraser to each child, and ink pads. Put the ink pads where they can be shared. The activity sheet contains scale representations and

questions about the planets. Have children ink their erasers and make a print on the activity sheet in a clear area. If this image represents the size of earth as seen through a telescope or in a photograph, how many earths are needed to completely cover Jupiter? Have students record their predictions on the activity sheet and make predictions for the other planets.

Before children actually determine the number of earths needed to cover each planet, discuss the difference between planet area and planet volume. As a visual aid hold up a ball or round fruit.

Area, used in this activity, refers to the observable surface of a planet as viewed through a telescope or seen in a two-dimensional photograph or drawing. If a ball is used, area would be the portion of the ball we can see.

Volume differs from area. It is the amount of space a planet or object occupies. Area is the external surface of the planet, while volume is the internal bulk of the planet.

Have the children check their predictions by actually covering each planet on the activity sheet with ink "earth" images. For example, Jupiter is shown with earth images covering its observable surface area. (See Figure 1). Children will observe that Jupiter is larger than earth and that the observable surface area of Jupiter is more than 100 times that of earth. More than 100 earths are needed to completely cover the observable surface area of Jupiter.

**Important note :** Jupiter's volume is not 100 times larger than earth's. In reality more than 850 earths could fit into Jupiters' space.

You may vary this activity by comparing the relative diameter of the earth to the other planets. To perform this activity, slit the middle portion—circumference—of the eraser with scissors until you make an indentation. Ink the eraser and blot it across the diameter of Jupiter.

Students will see the number of earth diameters relative to the diameter of Jupiter. (See Figure 2). The diameter of Jupiter is about 12

times that of earth. You can also compare planets smaller than earth. In this activity children determine what fraction of the earth's diameter is covered by Mercury or other planets.

The pencil eraser activity integrates science and mathematical concepts. In addition to illustrating conceptual size of planets in relation to earth, the activity reinforces mathematical concepts of area, diameter, and fractions.

#### Observation

(1) About how many earth images are needed to cover the observable surface areas of Saturn, Jupiter, Neptune and Venus?

(2) Which planet has a diameter that most closely resembles earth's diameter?

(3) What fraction of the earth's diameter is the diameter of Mercury?

(4) Earth is about twice as large as what planet?

(5) What planet has about nine times the surface area of Earth?

#### Problem-solving

(1) Hold a ball at arm's length and eye level. About how much of the ball can you see?

a. all, b.  $1/4$ , c.  $1/8$ , d.  $1/2$ .

(2) Using the information in the previous question, approximate the number of earth images needed to cover entirely Saturn, Jupiter, Neptune and Venus.—**Science and Children.**

**Marshall Browdy**

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[The above article is re-printed from THE HINDU dated March 16, 1980. Readers will be interested to know that on Tuesdays and Sundays, this newspaper, published in Madras, carries articles on Education.]



## Our Industries

The new trend in Primary Education involves the integration of the different subjects and the relation of these to the environment of the child. Accordingly we try to develop both Science and Social Studies Lessons under a common scheme of Environmental Studies. This being my first year in the teaching profession, I chose the above topic from the Social Studies syllabus of Class IV and tried to give it a new slant.

The topic itself was sub-divided into the following sections: Types of Industries, Location Raw Materials required, Products, Export of Products, Import of Raw Material.

In addition to the use of our prescribed textbook, I attempted to involve the students in various inter-linked activities connected with this topic. In the course of this project they not only mastered the contents of the syllabus but acquired additional skills like classification, graphical representation, mapping. They learnt to use their senses to observe the world around them. They improved their language skills as they asked questions and sought information from people and books and wrote about their experiences. Mathematics came in when they measured various industrial products available to them in their daily life. Simple experiments were conducted to compare the properties of some products.

A selection of the activities we tried out is given here. Space restrictions prevent me from going into more details, but I sure that you will yourselves think up many more activities.

To start off, the children were asked to look around their own classroom and list out the various industrial products seen there. Needless to say the list was quite long and the logical next step was to classify these under various heads. Some of the headings we used were Food (processed), Furniture, Glassware, Cloth, Leather Plastic and Rubber, Chemicals, Steel and Iron goods, Electrical Appliances.

Discussion amongst the children led to comparison of the sizes of these objects. Which is the smallest—the largest? In the classroom the smallest object the students could find was a common pin. Its size was measured and compared to some of the other items listed. Likewise the largest object available in the classroom was measured—length, breadth and height, this time.

Obviously we had to find out where these different items came from, their cost and sources of supply. An interview with the school manager provided some of the answers.

Labels on packets, containers and information taken from books led to the marking of the major industrial centres of India on a large map, put up near a wall where everyone could see it.

Children collected samples of industrial products, made models and used these to write up short accounts of different industries in India.

Samples of different varieties of cloth were collected. A simple experiment was performed to see which dried the fastest after washing. This provided a link with Science.

The various products collected were tested in a bucket of water. Some sank, others floated. Much discussion followed—why does a ship float, an empty tin float? What happens if the tin is full?

Amongst the industrial products which provoked much interest were vehicles. This led to a survey of the different forms of transport used by the students of the class and a graphical representation of the results.

Language exercises included the writing of the Autobiography of any item that they selected from their own lists. This gave them an opportunity to use their imagination as well.

The school is located near enough to factories for visits to be arranged. Among places of interest

*(contd. on page. 10)*

Dear Readers,

We thought you might like to know a little bit about the Educational Planning Group. Of course, you have been reading our quarterly Teachers' Newsletter—PATHWAYS. We hope that you enjoy it and that you show it to your friends as well.

What else do we do? At our office there is a Teachers' Centre with a small Library, full of interesting books for teachers; books to give you ideas; books to help you in your work; books which we hope that you will borrow and use. Come and visit us some time.

We run programmes for teachers—sometimes at the Teachers' Centre, sometimes at other schools. In 1979 alone we organised nine film programmes and fourteen programmes on subjects as varied as Environmental Studies, Mathematics, Creative Writing and Drama. We also ran Leadership programmes for students and trained teachers to run such programmes. In 1980, we have already held two very exciting programmes—a workshop on Music Education and a Science Activities Workshop. We were able to bring together about a hundred and fifty teachers from twenty-five different schools to work in groups and make suggestions for syllabus revision which were sent to the CBSE.

At the Teachers' Centre we can help you to duplicate material that you might like to use in your classroom. There is a cassette recorder that you can use to make tape recordings at the Centre. We would like to build it up into a Resource and Information Centre for YOU.

We look forward to your active participation in our programmes. Write and tell us what types of programmes you would like or what you feel the need of.

Gayatri Moorthy & Jose Paul  
Coordinators, EPG.

(contd. from page 9)

are a soft drinks manufacturing plant, the Milk Scheme and one or two small industries. Owing to the lack of time and the nearness of examinations. I could not arrange these visits. It would have given them opportunities to learn more about the manufacturing processes and also about the working conditions of the factory worker.

The students found that these activities were interesting and participated actively. I felt that perhaps they had ended up learning far more than was given in the pages of the text-book.

SANDHYA PATKE  
Springdales School, Pusa Road,  
New Delhi.

#### YOUR ATTENTION PLEASE

PATHWAYS is issued four times a year in February, April, August and November. The annual subscription for readers in Delhi is Rs. 5/- and Rs. 6/- for others. Subscriptions may be sent by Money Order to the Educational Planning Group, 4 Raj Niwas Marg, Delhi-110 054. Readers subscribing in 1980 will receive issues for April, August, November 1980 and February 1981. They will have to renew their subscriptions in February 1981.

Contributions from teachers describing new ideas that they have tried out in their classrooms, their problems and experiences are welcome. These should reach Mrs. Gayatri Moorthy at the above address not later than the 20th of the preceding month.

## Vocabulary Building

Young children love experimenting with sounds, learning new words and trying them out. Instead of maintaining a notebook where new words are written out with correct spelling and the 'dictionary meaning', try this idea.

Each student could make a book of eight pages. The cover page could be titled 'MY BOOK OF SOUNDS' and decorated with drawings or pictures of objects that make sounds. Using a new page for each group of words listed below, children could be encouraged to add to these lists and use their books to find suitable words to describe any sounds they hear.

Some of the words that could go into the book are :

**Noise** —booming, clanging, roaring, pealing, thundering, bellowing, deafening, piercing ear-splitting.

**Sudden** —snap, rap, smack, clap, thud, burst, knock, crack, click, thump, pop, slam.

**Repeated** —drumming, tattoo, ding-dong, rat-a-tat, rattle, rustle, roar, drone, hum, trill, chime, peal, shake, tick, beat.

**Hissing** —hiss, buzz, whizz, fizz, swish, wheeze.

**Ringling** —jingle, chink, clink, tinkle, chime, gurgle, tingle.

**Harsh** —creak, grate, jar, twang, jangle, clank, clink, scream.

**Faint** —whisper, murmur, rustle, purr, moan, sigh, tinkle.

**Cries** —roar, shout, bawl, hail, yell, howl, scream, moan, groan, cheer.

Children could use the book to find words to describe these happenings :

A book falling on a floor

A clock striking

A coin falling on the floor

An old door opening

A crowd at a football match

A school bell being rung

A drum being played

A bottle of Campa-Cola being opened

A sheet of glass breaking

A tap dripping

A man walking past in stiffly starched clothes.

Perhaps it might be possible to also make up

**A Book of Movements**—fast, slow, describing sports etc.

**A Book of Colours** —shades of and words describing white, black, brown, yellow etc.

As learning the use of a dictionary is an important skill to be acquired by students, they might be asked to first list words on a separate sheet of paper and arrange them in alphabetical order before writing them into their word-books.

(Adapted from 'Easy as ABC' — Explore and Report, Series B, Bk. 6. Wheaton)

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## Quiet Service

Any number of shadows do not make substance. Any number of desires do not make an achievement. What produces is work. Desires are good, but they must be urges from within and by being prevented from exhausting themselves in expression, made to create pressure. Recording and printing that we wish to do this, we wish to do that, we plan for this, we plan for that, is suicidal. The record must be only of what we have achieved. Let us avoid finding pleasure in and cultivating a taste for drum-beating and trumpet blowing. It is no substitute for work.

—C. Rajagopalachari

## Changes in Education ----

'Changes' in a school, whether of time-tables, text-books, teachers or subjects are generally initiated by adults ; sometimes by adults who do not have regular or frequent contact with the classroom. Towards the end of the academic year, I asked students from three of the classes I teach, to write down their personal opinions and suggestions for changes to be made in their education system.

Their comments, reproduced briefly below, range from asking for the impossible...fifteen students in a classroom — to pleas for less homework so that they can find time to play. They favour a closer teacher-pupil relationship where fear plays no part. Obviously they keep their eyes and ears open, for they write not only about their own classes in the Middle School, but have something to say about the others as well — from the Kindergarten right up to the seniormost class.

No doubt, these writings are based on their experiences in their own school. On reflection, however, I felt that many of these ideas were shared by children of most schools. They give us, 'adults', something to think !

Monica D'Souza.

Convent of Jesus & Mary  
New Delhi.

\* I advise that there should be only fifteen girls in the K. G. class and the teacher should be thirty to forty years of age, so that she is motherly.

\* From classes VI to XII, students are disobedient. Teachers should be strict and a bit young or very old, so that they understand them and at the same time can be strict.

\* Teachers sometimes get very angry and scold children over small things.

\* Younger children get too much homework.

\* Smaller children should not have examinations. They are too young to learn anything.

\* I'd like to have more time for play.

\* I'd like our education to be out-of doors so that we can enjoy our surroundings.

\* Students of Classes XI and XII are very mod — in fact they have gone beyond the limit. Teachers mean little to them.

\* Could our teachers be a little less impatient with us ? Some of us can't learn all subject easily.

\* Children learn better if they are shown movies or are taken on outings.

\* I wish teachers could be more friendly — especially to new girls who are feeling lonely.

\* I'd like the furniture and the classrooms to be more comfortable.

\* It's very hard to get up so early in the morning especially in winter — our school timings should be changed.

\* No uniform — it's a bore !

\* Teachers must be impartial, understanding and helpful.

\* We must have more Activity periods and entertainment.

\* I want education to be something I can enjoy, a pleasure, a pleasant thing; not a burden, a tiresome collection of dreary facts that I have to learn like a parrot.

## --- The Children's Point of View

- \* Classrooms should be well heated in winter.
  - \* Some girls (or boys) get left out. The teacher should try and see that this doesn't happen. Everyone should mix with the others in the class.
  - \* More outdoor games, P. T.—at least four times a week. Can we not have plays in our classes?
  - \* The school should have, every two-months an internal assessment test in every subject and these marks should be added up to find out the average marks of the child. This will help children to take interest in their studies and understand their responsibilities.
- (A most unusual comment ! This is already being done in most schools and I wonder if this child would like more tests ? Ed.)
- \* There should be more experiments in Science and Physics so that we get an idea of what is being done.
  - \* Teachers often explain a chapter just once and then say 'Tomorrow—a test.' The children are blank and do not write anything.
  - \* To get admission in schools is not easy. Even dull students must get admission in good schools. They deserve a chance, too.!
  - \* If the teacher is aware that a child fares well in the different subjects, the child could be promoted without examinations. She need only do papers in the subjects in which she fails.
  - \* Students do not like examinations. The teacher could pick out the students who are clever enough to cope with studies in the next class and promote them. The rest of the children could go up whenever the teacher feels that they will be able to cope.

In this way children are not forced to learn the entire syllabus in one year. They do not merely scrape through the examinations. Unless they are helped to learn the basics, it becomes more and more difficult later on, leading to total failure.

Those who stay back in the class must be helped to understand that when they get promoted they know as much as the others who went up earlier. They should not have an inferiority complex.

- \* If there are not more than twenty-five children in a class, all of them can get special attention from the teacher.
  - \* Children should become independent. After the teacher has explained the chapter, she should leave it to the child to decide whether he wants to do homework or not. The child will soon learn that the more home-work he does, the better he can learn and the sooner he can go to the next class.
  - \* Some girls are nervous They do not like to tell teachers about their problems.
  - \* Some of our text-books should be changed. Our Biology book has got so many spelling mistakes and the English is all wrong. In a chapter on 'Food & Health' the word 'rice' is spelt as 'rais' all over in a paragraph—and in everybody's book !
- Our Grammar book is not as good as it should be ; anyway I can't understand anything in it.
- \* Sometimes we have two examinations in a day—not on all days, only sometimes. I hope we don't have that again this term.

## BOOK REVIEWS

### THE EXPLORING CHILD—

A handbook for pre-primary teachers.  
by *Ruth Kohl*.

Orient Longman Ltd. 1979

Rs. 12.50

Based on the outcome of a research study conducted under the auspices of the Gujarat University School of Psychology, Education and Philosophy, the book is intended to help teachers observe and understand the behaviour of children, to help them to understand the principles on which the programme of a Pre-Primary school programme is based and to provide them guidelines and suggestions for their day-to-day work with children. In addition to theories, the book is full of ideas on how to develop art and handwork activities, and suggests how concepts of Science, scientific method and logical thinking may be introduced to a child in a manner suitable to his age. Group activities like sand play, water, block play are dealt with. There is also a section on Teacher-directed group activities, which gives suggestions for various games as well.

A useful Bibliography of Indian and foreign publications on various aspects of early childhood education and a partial list of institutions concerned with information and training in this field have been given at the end of the book.

### HANDICRAFTS FOR CHILDREN

by *K. Narasimhachary*

Orient Longmans Ltd.

Though the presentation of material in this book is somewhat unattractive, it is full of information on a whole range of craft activities for children. These include paper folding and cutting, using shapes to make designs, lettering and stencilling, cardboard modelling, fretwork and the making of mechanical toys, picture framing, papier mache, the making of woollen flowers and balls, stick and potato printing, wire models, bead curtains and embroidery. Each activity is copiously illustrated with black and white line drawings. Reasonably priced, it is available in Telugu and English editions. It won an award for children's publications in 1961.

**OLD AGE**—A Set of Materials designed to encourage Social Awareness in Children about the problems facing many Old People in India.

Issued by **Helpage India**—B-102 Himalaya House, Kasturba Gandhi Marg, New Delhi-110 001

This set is intended for use by students of the Middle School but could perhaps be useful at other levels also. It contains six pictures printed on glossy paper—three showing old Indians engaged in different tasks and three showing famous old people. Eight worksheets give instructions to students on what they are required to do; make surveys, read the case-studies on the worksheets, act out a dramascript, paint, draw and so on. The teacher is supplied with separate notes to help him to use the set effectively.

### BRAIN-TEASERS-MATHS (Junior)

by *P. N. Thakur and Pushpa Thakur*

The Macmillan Company of India Ltd. 1978

Rs. 7.00

This little book aimed at the 10-14 years age, group can keep many adults absorbed. It offers recreation as well as a training in the use of fundamental mathematical concepts.

### THE HAMLYN JUNIOR SCIENCE ENCYCLOPEDIA

Edited by *Pitt, Daintith and Isaacs*

Available at most major book-shops.

We would like to bring this book to the notice of teachers and parents who are constantly having to answer the 'why?' of their children. Although priced at £ 3.25, it is a worthwhile addition to any Library.

Subjects covered range from the Earth and the Universe to concepts in mechanics, light and sound. Discoveries and inventions right up to the modern computer, radar and rockets are explained simply along with coloured diagrams. Biographical data on inventors is presented in interesting fashion together with portraits. Various enjoyable activities and experiments are suggested.

(contd. from page 3)

behaviour. We should think in terms of the child being able to "draw, paint, list, demonstrate, distinguish, classify, illustrate, apply, translate, summarise, expand, speak" and so on. Other words which might prove useful are — name, state, write, identify, compare, report, describe, make, design, construct. Can you suggest some more?

Every experienced teacher knows that the goals set for his class should be challenging enough to stimulate them but should at the same time be attainable and realistic. If they are beyond the reach of the learner, he can only end up feeling frustrated. In specifying behavioural objectives, the teacher must keep in mind this aspect and build into the statement a way of measuring the behaviour and also defining the standard of performance he expects his pupils to achieve. Our three statements could perhaps become.

The child must be able to spell orally and in writing, ninety percent of the words in the lesson "The Monkey's Paw".

The child will be able to paint a landscape of a place he has seen using crayons or colours and produce a picture comparable in artistic quality to the one on the display board, within one hour.

The child will be able to make a short speech of two minutes duration in front of his class if he is given help in organising the material for his speech.

Specifying the standards by which the behaviour is to be measured, and the standard to be attained helps us in evaluating the performance of the child as well as the learning activity.

To summarise, a well-stated behavioural objective

- \* tells us what the child is expected to do as a result of his learning experience—that is, it defines student behaviour.
- \* deals with behaviour that is both observable and measurable.
- \* sets a goal for the learner that is attainable and realistic
- \* specifies the standard of performance to be achieved by the learner.

Given below is a list of statements. You might like to study them to identify which are

properly stated behavioural objectives and which are not. Can you also find out what is lacking or ways of improving these statements?

1. To teach the students about the cultural heritage of India.
2. The students will be able to summarise the lesson in approximately three hundred words without losing the continuity of the theme.
3. The student can identify the elements of a chemical compound through systematic analytical experiments in two hours time
4. To enable the student to act responsibly at all times.
5. The student will be able to help out in household duties voluntarily and cheerfully.
6. To enable a child to do multiplication sums.
7. The child will understand the uses of petroleum products.
8. The child will be able to appreciate the poem "The Daffodils".
9. To enable 80% of the class to solve within seven minutes a problem in which they are required to calculate the length of one side of a right-angled triangle given the length of the other side and the hypotenuse.
10. To develop scientific attitude in the child.

Would you like to re-write these statements as behavioural objectives, putting in additional details as where required?

The aim of my lesson is to

- (i) teach the student about the parts of a flower.
- (ii) teach the student to write a short paragraph.
- (iii) teach him to construct an angle of sixty degrees using ruler and compasses only.
- (iv) teach the differences between living and non-living things.
- (v) teach him the causes for the decline of the Mahrattas.

Could you also re-state in behavioural terms the objective with which this article was written? It is printed in bold type in the fourth paragraph.

(contd. on page 20)

(Mr. Jose Paul, who is Coordinator in the Educational Planning Group is a Mathematics teacher. He is very interested, in educational psychology and is greatly involved in youth work and Value Education Programmes.)

## Something to Think About

Competition is a necessary factor for progress. It can have a tremendous positive influence on one's life. However, is this true of the type of competition we face everyday in our lives? It seems that most people are in the middle of a rat-race, with only one aim left in their lives "Get to the top, beat all your opponents, trust no-one. Once you get there, don't let anyone elbow his way up."

Is this the real concept of competition? Does this help us to grow—as people? If one views competition as an incentive to continuously improve on one's own past records, is it not more meaningful? Should we perhaps aim to be better today than we were yesterday, irrespective of the achievements of others?

You might feel that comparison of our results with those of others should act as an inspiration and help us to climb the ladder somewhat faster. Is this always true?

So many activities in a school are geared to promoting competition between students, rather than emphasising self-improvement. Marks and grades are fine if they help a child to know where he stands, tell him which aspect of a subject he should concentrate on. Is it necessary to compare his marks and rank him against his classmates?

Inter-school activities are fiercely competitive, often leading to selection of a favoured few students to represent their school at almost all events. What about giving others a chance? What about fostering co-operation between students of different schools instead?

Prize distributions are another occasion where we might seek ways of showing our appreciation to as many children as possible. Those who have come first and second in the class have certainly worked hard, but is it not as great an achievement for a child who has failed frequently in a subject to have come up to passing marks or fifty percent in the final examination?

There are no straightforward and easy solutions to these problems. We need to think long and hard about them and experiment to provide a school environment that helps students towards developing attitudes of mutual trust, co-operation, friendship and healthy competition.

---

मेच

दूर कहीं तुम जाओ बादल,  
आज यहाँ मत आओ बादल।  
जाओ और किसी दिन आना,  
मेच खेलने मुझको जाना।

चाँद

धीरे - धीरे, चुपके - चुपके,  
देखो आया चाँद गगन में।  
चाँदी का यह कोट पहनकर,  
इतराता है अपने मन में।

Arti Dalmia  
V C  
Presentation Convent  
Delhi-6



# TOMBOLA

The game of Tombola (also known as Housie or Lotto), usually played by adults, can be adapted in a variety of ways for use in a classroom. It will essentially be of use in drilling and in testing the quick recognition of items by students. A teacher could prepare a large set of cards where each child in the class takes one, and the teacher herself calls out the numbers or words to be ticked off on the child's card. Alternately, students could work in small groups of six or eight where one leads the game. This could be one way of occupying those few minutes at the end of a period when there is not enough time to start something new; the children having finished their allotted quota of work are inclined to be restless. It would add interest and perhaps prove an incentive to the learning of multiplication tables, spellings and so on.

Some variations are described below, which could be used in language and mathematics. An imaginative teacher could find many other ways of using this game.

Let us start with mathematics. Suppose we wish to get the children to practise the four-times table  $4 \times 1 = 4$   $4 \times 2 = 8$  . . . and so on up to  $4 \times 12 = 48$ . These twelve products can be written in a number of combinations on small cards to be given to the children - one per child. Each card is divided into six compartments and one of the above products is written in each compartment. The teacher's set consists of twelve cards on which are written, in large, easily visible numbers  $4 \times 1$ ;  $4 \times 2$ ;  $4 \times 3$ ... up to  $4 \times 12$ . Note that the answer is not written on these cards.

The children's cards are given out, and as the teacher or leader holds up each card from his set, the child marks that particular answer on his card. If the cards are to be re-used, they could be made out of stiff card-paper and children could use buttons or other markers to

avoid making pencil marks on their cards. You might wonder how using just 12 numbers; 4, 8, 12...to 48 a large number of children's cards can be prepared. Consult your senior colleagues in the mathematics department and you will find out that twelve numbers, taken six at a time can lead to as many as nine hundred and twenty-four combinations!

Similar sets could be prepared to test a number of multiplication tables; or choosing specific number combinations like  $2 \times 9$ ;  $3 \times 5$ ;  $4 \times 6$ ; . . . taking care that any answer does not occur more than once.

The idea could also be adapted to addition, subtraction and division. Simple conversions in units: from kilometres to metres, metres to centimetres or millimetres; money; units of weight can form the basis of other sets prepared by the teacher. The teachers' cards would now carry questions like:  $5 \text{ km} = \text{— m}$ ;  $5 \text{ m } 23 \text{ cm} = \text{— cm}$ ;  $\text{Rs. } 5.89 = \text{— p}$ ;  $23 \text{ kg} = \text{— gm}$ . The answers would be written on the children's cards without the units.

Further variations for higher classes in the primary school could involve mental arithmetic—simple sums on ratio and proportion, addition of fractions.

One more idea: Simple fraction like  $1/4$ ;  $1/2$ ;  $3/4$ ;  $2/5$ ;  $3/5$ ;  $4/5$  and so on, could be written on the children's cards. The teacher could hold up cards where a circle is drawn divided into a number of equal parts and an appropriate fraction of the circle shaded in a bright colour. This will also help to fix in the children's mind the physical idea of such fractions.

Starting with language drilling for the very young, the teacher could hold up large pictures of various objects and the children could mark on their cards the letter with which the object's name begins. This could be done for capitals

*(contd. on page 23)*

## Mini Craftsmen at Work

This year, our school selected the theme 'People who Work behind the Scene' for a project. The project was subdivided into six parts miners, potters, craftsmen, labourers, farmers and fishermen. Each class—from the nursery up to the fourth standard—was allotted one part. Our classes, IIA and B, were asked to work on 'Our Craftsmen'. The project culminated in an exhibition held on March 24, 1980 with the aim of displaying the work done by the children.

I decided that perhaps the best way of working on our portion of the project was to involve the children in using their own hands at various activities and in making samples. I had to experiment using inexpensive materials and was surprised at the skill the children showed, how quickly they learnt the techniques and made their own innovations.

Some of the ideas we tried out were :

### Footmats made of Rags:

The raw materials used were old saris, needle and thread. Strips, about 10—15 cm wide, were cut out from the old sari and were plaited. A finger's length of this plaited braid was made into a flat ring and sewn up. This formed the nucleus of the mat. The plaited braid was then wound the ring in a spiral. The coils were held in place by stitching them to one another, as shown below.

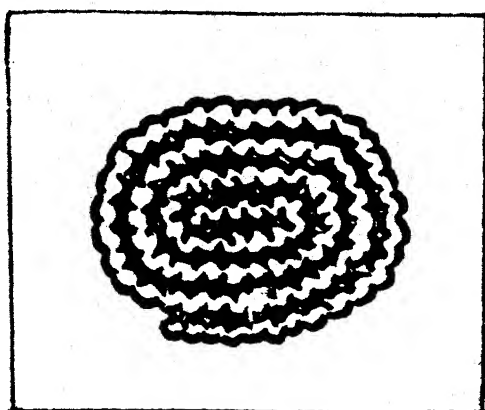


Fig. 1

From one old, well we used sari of about 5½ metres, were able to make a mat about 50 to 60 cm across at its widest part.

### Weaving on Simple Looms :

The materials used were rectangular wooden frames approximately 25 cm × 30 cm, four small hooks, two knitting needles, wool and a blunt needle.

On each corner of the wooden frame a hook was fixed. Through these the knitting needles were passed, as shown in the figure, and were tightened into position. They proved stiff enough not to get bent when the warp was prepared. Our earlier experiments with bamboo were not successful because of this problem.

Twenty-four pieces of wool, each about 50 cm long were cut. Each piece was doubled. These warp threads were wound around the upper needle and secured to the lower one by double knots.

The weft was then made by darning with the help of the blunt needle, using wool of the same or a different colour.

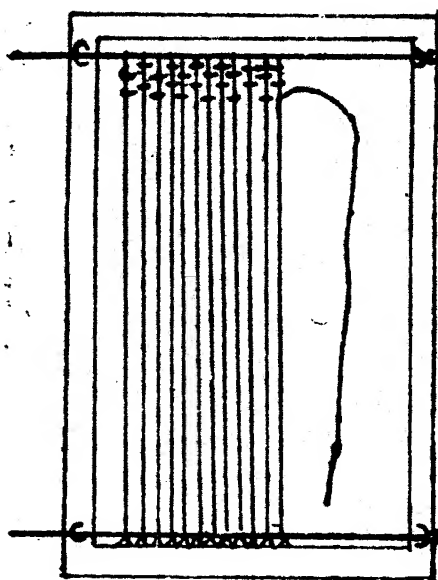


Fig. 2

### Carpet Weaving :

It was not found very practicable to use the conventional vertical loom for demonstrating the manufacture of hand-knotted carpets. We were, therefore, constantly on the look-out for some way of producing the same effect, using simple means which could be handled with ease by the children. The first idea that struck me was to use wool, cut into pieces about a centimetre long and and to paste these on hessian using Fevicol. We tried this out by making a square of about 15 cm size in the middle of a piece of hessian. The loose tufts of wool were trimmed with a scissor to give our 'carpet' a smooth pile.

The children mastered this quite soon and began to experiment on their own. Their imagination helped them to create figures of animals on a hessian background.

Our next attempt was somewhat different. We took about a metre of wool and folded it twice. These four strands were then passed almost completely through the warp of the hessian cloth. The shorter ends were held together and cut. The longer end of the wool was now taken through the hessian again in the opposite direction. The strands were cut again. This process was repeated on every alternate warp of a single line and then we went on to the next line. Using about half a

ball of old knitting wool we were able to produce a fifteen-centimetre square piece of hand-tufted pile carpet.

Other crafts the class tried out included. Cane Weaving-soft — thin broom sticks were used to weave mats

Block-Printing-using old wooden blocks and also some blocks cut out of potatoes

Jari and Sequin Work—Jari and sequins were pasted on to an outline drawn on cloth with the help of Fevicol. Borders were made with jari to give the pictures a finish.

Spinning—using small taklis

Macrame belts were made using coloured cords (black and white look very effective) and old buckles taken from discarded trousers.

My initial worry that children of Class II, seven-plus years of age, might not be able to pick up these skills proved to be unfounded. We tried always to start with simple processes. This also built up their interest and most were very keen to learn new skills and try out new ideas of their own. Their imagination, enthusiasm and initiative was a great source of satisfaction to us.

(Mrs. Asha Halan is a teacher at Sahoday School, New Delhi)

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The more intelligent a man is, the more originality he discovers in men. Ordinary people see no difference between men.

—Blaise Pascal

'Tis education forms the common mind,  
Just as the twig is bent, the tree's inclined.

—Pope

Human history becomes more and more a race between education and catastrophe.

—H. G. Wells

Happy hearts and happy faces,  
Happy play in grassy places—  
That was how, in ancient ages,  
Children grew to kings and sages.

A Child's Garden of Verses  
—R. L. Stevenson

(contd. from page 15)

1. 'To teach' refers to teacher activity not to student behaviour.
2. This refers to student behaviour, is specific because it gives a level of achievement which is measurable under given conditions.
3. Refers to student behaviour, that is observable, measurable and sets a realistic, achievable goal.
4. Such a goal is not easily attainable, nor measurable.
5. Achievable, measurable—could it be further defined?
6. General, not specified what level of achievement is to be aimed at.
7. 'Understand' does not give rise to observable behaviour.
8. 'Appreciation' too is not measurable directly.
9. Fully defined objective, stated in behavioural terms.

10. Vague. To 'develop' is a teacher-oriented statement, and how would this 'attitude' be observed?

The student will be able to :

- (i) identify the parts of a flower, using a given specimen
- (ii) write a paragraph of 200 words on a given topic, using simple, correct, grammatical sentences and maintaining an appropriate sequence of ideas, within a period of forty minutes.
- (iii) construct an angle of sixty degrees using ruler and compasses only.
- (iv) list out the differences between living and non-living things ; classify a given collection of things into these two categories.
- (v) list out the causes for the decline of the Mahrattas.

My objectives in this article were to enable the reader (i) to distinguish between general and specific objectives (ii) to distinguish between behavioural and non-behavioural objectives (iii) to write down some samples of behavioural objectives pertaining to his own subject.

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Dear Editor,

#### **The use of Standardised Tests and Testing Procedures**

I feel that it is essential for practising teachers to know about these tests and testing procedures. We should be professional educators rather than mere communicators of information. We should attempt to measure as accurately as possible the attainment levels of individual children and to diagnose their learning difficulties. To use an example, "How does Gurinder's Attainment level in Arithmetic compare with that of other boys of his age in the same class?" or "What is the particular nature of Vinay's difficulties with reading?"

Such tests are certainly no substitute for careful and continuous observations made by the teacher on the development of the children in his care. It is necessary for us to be aware of the personal traits of a child ; his reactions to the changing social and physical environment around him. Knowing in this way, the "Whole Child", we should be able to use the results of the tests with discretion.

I have used the graded-word Reading Scale for the past three years. I feel it is not a particularly good way of measuring the complex skills involved. Reading is a process of extracting meaning from printed symbols. This test appears to be concerned essentially with recognition of isolated words and the reading aloud of isolated sentences.

Yours sincerely,  
Mrs. P. Washington  
St Xavier's School

## HINDI RECITATION

Carefully selected poems which appeal to a child's innate sense of rhythm, lend themselves to dramatisation and can involve every child in the class, serve to make our Hindi Recitation in class I and II interesting.

The poem given below can be used to teach children the names of different parts of the body, give them an elementary Health education and develop sympathy for those who are not well. Each child in the class brings her own favourite doll to school and the effect can be enhanced by use of a thermometer or a toy Doctor's kit.

मेरी गुड़िया पड़ी बीमार,  
डाक्टर देखो भली प्रकार।  
कल था बरसा छम-छम पानी,  
उसमें भीगी गुड़िया रानी।  
भीगे कपड़े दिये उतार,  
फिर भी गुड़िया पड़ी बीमार।

गुड़िया कांप रही है थर-थर,  
उसे लगाओ थरमामीटर।  
ओ हो इतना तेज बुखार,  
सौ से ऊपर डिग्री चार।  
जब-तक उसको रहे बुखार,  
तब-तक पैसे रहे उधार।

The extension of the lesson after this point would include teaching them the names of all parts of the body, with the students pointing out the same either on their dolls or on themselves eg.

आंखें, बाल, कान, हाथ

The names of various colours can be taught using the dolls available to point out examples. An additional chart showing different articles in various colours helps. eg. a red post-box, white milk, green leaves, yellow flowers etc.

New words and phrases can be emphasised :

थर-थर, भली प्रकार, भीगी, तेज बुखार, सौ, उधार

Words that are opposite in meaning like :

छोटी, बड़ी, मॉटी, दुबली, काली, गोरी

can be brought in, again using the dolls available in the class.

I give below some more action poems which have proved effective and popular with the children. As they develop proficiency in the language, the poems get more complicated. The teaching ideas are self explanatory.

### गिनती

एक दो चल मुँह धो,  
तीन चार हो जा तैयार।  
पांच छः खा लो सेब,  
सात आठ पढ़ लो पाठ,  
नौ दस आ गई बस।

### तितली

यदि मैं नन्हीं तितली होती,  
उड़ती रहती कभी न सोती।  
बागों में रहती दिन रात,  
कली कली से करती बात।  
उड़-उड़ करके जब थक जाती,  
बैठ फूल पर मैं सुस्ताती।

## सात दिन

सात दिनों की मुनो कहानी,  
काम करो फिर छोड़ शैतानी ।  
है रविवार बहुत ही सुन्दर ।  
छुट्टी पा सब रहते घर पर ।  
कभी सैर पर हम सब जाते,  
दिन भर अपना मन बहलाते ।  
सोमवार से हम सब पढ़ते,  
कहते जो गुरु जी हम करते ।  
मंगल के दिन पिता हमारे,  
लाते लड्डू प्यारे-प्यारे ।  
बुध वृहस्पति, शुक्र शनिश्चर,  
हम सब दिन रहते हिलमिलकर ।

## गिनतो

एक राजा की राजकुमारी,  
दो दिन से बीमार बेचारी ।  
तीन महात्मा देखने आये,  
चार दवा की पुड़िया लाये ।  
पाँच मिनट में गर्म कराई,  
छः-छः घण्टे बाद पिलाई ।  
सात दिनों में आँखें खोलीं,  
आठवें दिन रानी से बोली ।  
नौवें दिन पाठशाला आई,  
दस अक्षरियां दान कराई ।

A riddle that they love to pose to their parents.

टिक-टिक टिक-टिक करती रहती,  
हरदम आगे बढ़ती रहती ।  
हमें जगाना समय बताना,

चलते जाना - उसका काम,  
कहती है "आराम हराम"  
बोलो मम्मी ! उसका नाम ?

In the second term the children enjoy learning 'रेलगाड़ी' which offers them plenty of scope for dramatisation and role-plays in costume (the different characters), voice modulation—loud and soft, quick and slow and involves the whole group.

## रेलगाड़ी

"छः छः पैसा चल कलकत्ता"—  
गाना गाती, धुँआँ उड़ाती ।  
मजा लगाती, सैर कराती ।  
आती रेल दिखाती खेल ।  
बहु स्टेशन पर रुकती आ कर ।  
मचली हलचल, बढ़ती पलपल ।  
भारी शोर मचा सब ओर—  
"गरमा-गरम निठाई-पूड़ी"  
"पान-तम्बाकू सिगरेट-बीड़ी ।"  
"गरम चाय औ गरम तिकोने,"  
"चुर मुर चूरा सेव सलोने ।"  
"भुन-भुन गुड़िया बिल्लो रानी"  
"सोडा लैमन ठन्डा पानो ।"  
"कुली, ए कुली ! जल्दी आओ !  
यह मेरा सामान उठाओ ।"  
कैसा शोर मचा सब ओर ।  
भटपट आओ, टिकट कटाओ ।

जल्दी करो न देर लगाओ ।  
आकर डिब्बे में चढ़ जाओ ।  
रुको नहीं आगे बढ़ जाओ ।  
देखो 'गार्ड' महाशय आते,  
सिगरेट का है धुँआँ उड़ाते  
मजे-मजे से कदम बढ़ाते,  
रुकते, फिर चलने लग जाते ।  
अरे गार्ड ने विसिल बजाई ।  
और हरो भन्डी दिखलाई,  
इन्जन से भी सीटी बोली,  
अरे, रेलगाड़ी फिर डोली  
धीरे धीरे लगी सरकने  
लो, अब लगी तेज फिर चलने ।  
"छः छः पैसा चल कलकत्ता"—  
गाना गाती धुँआँ उड़ाती  
आती रेल, दिखाती खेल ।

Chand Dodeja

Convent of Jesus & Mary, New Delhi.

## Rhyming Words

During Poetry lessons in Class III A, the children became aware of words that rhyme. This led them to much experimenting with sounds and they began to make lists of rhyming words. Ideas flowed freely and they ended up with long lists :

ball, call, fall, tall  
goat, boat, note, coat, wrote  
sun, bun, fun, run, done  
crash, mash, rash, lash, dash  
inn, bin, fin, tin  
door, four, bore, more, roar  
sky, why, die, lie, my  
chair, care, bare, hare, mare  
phone, cone, mourn, tone, lone ...and so on.

Next a few of them wanted to compose poetry using these words. Some of their attempts are given here.

Inderjit Sohi  
Springdales School, Pusa Road.

### The Dwarf

There was once a smart little dwarf,  
Who wore a violet scarf,  
Whose name was Marf,  
He used to live on a saddle,  
With always in his hand a candle.

B. Ashok

### Mr. Goat

Mr. Goat  
Sailed in a boat,  
He wore a blue coat,  
He had a hundred-rupee note.

Prashant Goel

### A Rat and a Cat

There was a cat  
The cat wore a hat,  
It was eaten by the rat,  
So the rat was killed by the cat,  
And that was the end of that rat.

Sonia Gupta

### The Song of Life

There is a sun in the sky  
There is a sun in the sky  
Which always likes to give us light.  
There is a star in the sky  
There is a star in the sky  
Which always twinkles every night.  
There is a moon in the sky  
There is a moon in the sky  
Which likes to tell us lullaby.

Vatsraj

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*(contd. from page 17)*

as well as lower case letters, and is merely an extension of the 'A is for Apple' idea.

As a next step the letters on the children's cards could be replaced by words, specially chosen from their limited vocabulary. This provides a way of checking on word recognition and spellings. Perhaps it might also be possible to match a picture held up by the teacher with its partner on the child's card. This would need careful planning to find easily identifiable pairs like bat and ball; cup and saucer; bucket and mug and so on. Depending on the age level of class the teacher might find it easier to write words instead of drawing pictures, or use a one-word to one-picture combination.)

We would be happy to have from our readers, suggestions for other learning games which could be tried out in class.

Gayatri Moorthy

# M L S

## Multilevel English Reading Programme

**A NEW INDIVIDUALISED TECHNIQUE FOR  
LEARNING ENGLISH DEVELOPED FOR  
THE FIRST TIME IN INDIA**

Based on  
Dr. Don Parker's Multilevel Philosophy  
of Self-paced Instruction.

Developed by :  
Dr. Madhuri R. Shah

and

Kallolini P. Hazarat

The laboratory provides built-in flexibility which enables a teacher to use it for a specific class as per its need in his/her institution. It can be used where English is learnt as a *first* language in classes II to IV as well as where English is learnt as a *second* language, for the first three years of learning English. It can be used in the place of a text-book or as supplementary material.

The language lab is so devised as to cut down costs of instruction. The kit purchased by the school, can be shared among classes. All writing by the students is done only in the student Record Book. One lab can be used in a class of forty or more children.

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- \* for students to evaluate their own progress

### 3. STARTER BOOKLET (8 COPIES)

- \* to assess student achievement level for placement

### 4. TEACHER'S HANDBOOK

- \* to acquaint the teacher with the different skills the materials are designed to provide
- \* to tell the teacher how to use the Reading Laboratory

### 5. STUDENT RECORD BOOK (ONE SAMPLE)

- \* for students to record answers and plot charts of daily progress

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